

WHAT IS CLAIMED IS:

1. A multiple diameter syringe comprising:
 - a barrel;
 - a fluid conduit in fluid communication with a proximal end of the barrel; and
 - a plunger disposed inside the barrel;wherein the barrel comprises:
 - a narrow barrel portion adjacent the proximal end of the barrel, and
 - a wide barrel portion adjacent a distal end of the barrel, the wide barrel portion having a diameter that is substantially larger than the diameter of the narrow barrel portion; andwherein the plunger comprises:
 - a narrow plunger portion sized to move within the narrow barrel portion, and
 - a wide plunger portion sized to move within the wide barrel portion.
2. The multiple diameter syringe of claim 1, wherein the plunger further comprises:
 - a wide resilient stopper disposed between the narrow plunger portion and the wide plunger portion, the wide resilient stopper being sized to slidably and sealably engage an inside surface of the wide barrel portion.
3. The multiple diameter syringe of claim 2, wherein the narrow barrel portion has a constant diameter interior profile and wherein the plunger further comprises:
 - a narrow resilient stopper disposed on the narrow plunger portion, the narrow resilient stopper being sized to slidably and sealably engage an inside surface of the narrow barrel portion.
4. The multiple diameter syringe of claim 3, wherein a fluid flow channel is formed in the the narrow barrel portion so that fluid is free to flow through the fluid flow channel between a lower chamber formed inside the wide barrel portion and an upper chamber formed inside the narrow barrel portion.
5. The multiple diameter syringe of claim 2, wherein the narrow barrel portion has a tapered interior profile and wherein the narrow plunger portion comprises:

a tapered stopper having a shape that corresponds substantially to the tapered interior profile of the narrow barrel portion.

6. The multiple diameter syringe of claim 1, further comprising:
a shield in slidable engagement with the narrow barrel portion.

7. A multiple diameter syringe having a common property within a syringe family, the multiple diameter syringe comprising:

a barrel;

a fluid conduit in fluid communication with a proximal end of the barrel; and

a plunger disposed inside the barrel;

wherein the barrel comprises:

a narrow barrel portion adjacent the proximal end of the barrel, the narrow barrel portion having a constant diameter interior profile, and

a wide barrel portion adjacent a distal end of the barrel, the wide barrel portion having a diameter that is substantially larger than the diameter of the narrow barrel portion;

wherein the plunger comprises:

a narrow plunger portion sized to move within the narrow barrel portion,

a wide plunger portion sized to move within the wide barrel portion,

a wide resilient stopper disposed between the narrow plunger portion and the wide plunger portion, the wide resilient stopper being sized to slidably and sealably engage an inside surface of the wide barrel portion, and

a narrow resilient stopper disposed on the narrow plunger portion, the narrow resilient stopper being sized to slidably and sealably engage an inside surface of the narrow barrel portion;

wherein narrow barrel portion has an outside diameter that is substantially equal to a standard diameter for the syringe family; and

wherein a fluid flow channel is formed in the the narrow barrel portion so that fluid is free to flow through the fluid flow channel between a lower chamber formed inside the wide barrel portion and an upper chamber formed inside the narrow barrel portion.

8. A multiple diameter syringe comprising:
 - a barrel;
 - a fluid conduit in fluid communication with a proximal end of the barrel; and
 - a plunger disposed inside the barrel;wherein the barrel comprises:
 - a narrow barrel portion adjacent the proximal end of the barrel, and
 - a wide barrel portion adjacent a distal end of the barrel, the wide barrel portion having a diameter that is substantially larger than the diameter of the narrow barrel portion; andwherein the plunger is sized to move within the wide barrel portion and the plunger comprises:
 - a resilient stopper disposed at a proximal end of the plunger, the resilient stopper being sized to slidably and sealably engage an inside surface of the wide barrel portion.
9. The multiple diameter syringe of claim 8, further comprising:
 - a shield in slidable engagement with the narrow barrel portion.
10. A syringe having a common property within a syringe family, the syringe comprising:
 - a barrel having an outside diameter that is less than a standard diameter of the syringe family;
 - a fluid conduit in fluid communication with a proximal end of the barrel; and
 - a plunger disposed inside the barrel;
 - a resilient stopper disposed the proximal end of the plunger sized to slidably and sealably engage an inside surface of the barrel;
 - a false barrel surrounding the barrel and disposed at the proximal end of the barrel, the false barrel having an outside diameter that is substantially equal to the standard diameter for the syringe family.
11. The syringe of claim 10, further comprising:
 - a shield in slidable engagement with the proximal end of the barrel.
12. A syringe family comprising:

two or more syringes, wherein each of the syringes has a different volume capacity that the other syringes, and wherein all of the syringes share the common property of having a barrel that has an outside diameter at its proximal end that is substantially equal to a standard diameter for the syringe family.

13. The syringe family of claim 12, wherein at least one of the two or more syringes has a barrel comprising:
a narrow barrel portion adjacent the proximal end of the barrel, and
a wide barrel portion adjacent a distal end of the barrel, the wide barrel portion having a diameter that is substantially larger than the diameter of the narrow barrel portion.
14. The syringe family of claim 13, wherein at least one of the two or more syringes has a barrel that has an outside diameter that is less than a standard diameter of the syringe family, wherein a false barrel surrounds the proximal end of the barrel, the false barrel having an outside diameter that is substantially equal to the standard diameter for the syringe family.